

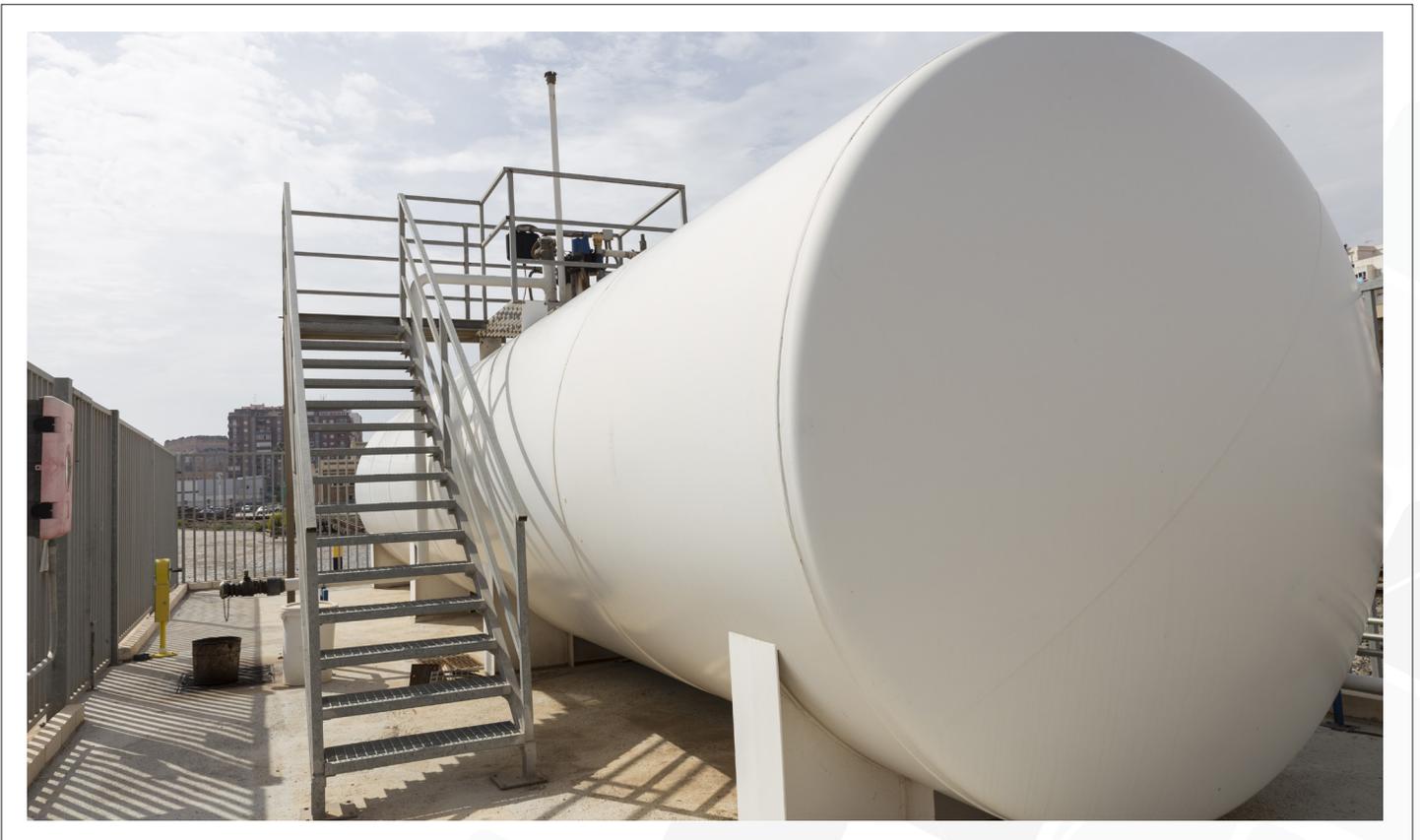
VpCI® Additives for Fuels, Crude Oil, and Natural Gas



Simple. Clean. Efficient.

Industries often require the use of large and small fuel storage tanks and systems. However, this raises concerns about fuel separation and corrosion of new equipment fuel tanks during shipping and storage. Cortec's fuel additives can help alleviate these problems with a variety of products to provide corrosion protection and stabilize fuel.

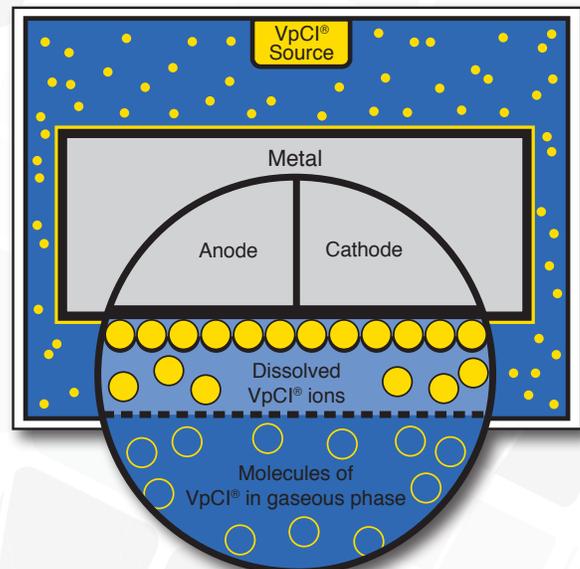
A unique advantage of many Cortec® additives is their vapor phase protection for metals in void spaces above the fuel. When introduced to these areas, VpCI® molecules in the additives vaporize and diffuse throughout the enclosure and adsorb on metal surfaces. This thin molecular hydrophobic layer protects the metal against corrosive elements such as oxygen, moisture, and chlorides.



Benefits of VpCI® Fuel Additives:

- Reduce carbon deposits
- Provide vapor phase protection for tanks containing only an operational amount of fuel
- Stabilize or disperse fuel to maintain good quality

VpCI® additives form a thin molecular corrosion inhibiting layer that adsorbs on the surface of the metal, displacing existing water, chlorides, or other corrosive contaminants on the surface. These additives provide multi-metal protection for many different cleaners and cleaning applications such as surface prep, food can sterilization, and manufacturing.



Selection Guide for Fuel, Crude Oil, and Natural Gas Additives

S-49: Fuel oil dispersant/emulsifier keeps insoluble particles dispersed, reducing carbon deposits and particulate emissions. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI®-629: A fast-acting long-term inhibitor that forms a persistent barrier against severe corrosive attacks encountered in refinery and petrochemical operations. Protects ferrous and non-ferrous metals in the presence of water, halogens, and corrosive gases. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI®-637: A combination of vapor phase, neutralizing, and film-forming corrosion inhibitors that provide effective internal corrosion control in natural gas and crude oil gatherings and transmission lines. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI®-639: A fast acting long-term contact corrosion inhibitor designed to provide corrosion protection against the severe conditions encountered in petroleum production and refining. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI®-705: Corrosion inhibitor, fuel stabilizer, and water emulsifier for gasoline, diesel, and gasohol mixtures. Also available in biodiesel version. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI®-706: Diesel and biodiesel fuel additive protects heavy equipment fuel tanks and systems from corrosion during storage, shipment, and equipment use. Provides strong vapor phase protection. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

Product	METALS PROTECTED							ATTRIBUTES					
	Carbon Steel	Stainless	Galvanized	Aluminum	Brass	Copper	Bronze	Physical State	Transport Mechanism	Solubility	Degree of Protection	Typical Applications	Typical Dosages
S-49	x	x	x					Liquid	Vapor Phase & Contact	Solvent / Oil	Long term	Fuel Oil	0.25-0.1% by volume
VpCI®-629	x	x		x				Liquid	Contact	Water / Solvent Dispersible	In Process	Process Injection	Contact Cortec®
VpCI®-637	x	x		x				Liquid	Vapor Phase & Contact	Water / Solvent Dispersible	In Process	Process Injection	Contact Cortec®
VpCI®-639	x	x		x				Liquid	Contact	Solvent / Oil	In Process	Process Injection/Pigging	Contact Cortec®
VpCI®-705	x	x	x	x	x	x	x	Liquid	Vapor Phase & Contact	Solvent / Oil	Long term	Fuel Oil	0.1-0.15% by volume
VpCI®-706	x	x	x					Liquid	Vapor Phase & Contact	Solvent / Oil	Long term	Fuel Oil	0.1-0.5% by volume



Cortec® Corporation



Quality Management System (ISO 9001 Certified)

World Class Product Offerings

An innovative producer of leading edge products.

World Class Customer Service

A positive, long-lasting impression through every link of our company.

World Class Environmental Commitment

Cortec® commits to continued development of processes and products that are useful, non-hazardous to the environment, and recyclable whenever possible.

An Ethical and Respectful Company Culture

Respect and treat our colleagues, customers, and vendors as we would our own family members.



Environmental Management System (ISO 14001 Certified)

Cortec's strong environmental concern is demonstrated in the design and manufacturing of products that protect materials of all kinds from environmental degradation. A strong commitment to produce recyclable products made from sustainable resources has been and will be our future policy. This brochure can be recycled.



Laboratory Accreditation (ISO/IEC 17025)

Cortec® Laboratories, Inc. is the only lab in our industry that has received ISO/IEC 17025 Certification, which ensures quality in recording and reporting data, as well as calibrating equipment within the laboratory.



LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

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